

## **SECTION 01013 - SUMMARY OF WORK – ASBESTOS ABATEMENT**

### **PART 1 - GENERAL**

#### **1.01 STATEMENT OF WORK**

The work consists of furnishing all parts, labor and materials as required (except as indicated otherwise in specifications) and performing all work in strict accordance with the plans and specifications for Asbestos-Containing Material at **713 Indiana, Wichita Falls, Texas.**

Work shall include, but not be limited to: preparation, asbestos removal, air monitoring and air sampling. Where there is a conflict of Applicable laws or this specification, Contractor shall abide by the most stringent requirement.

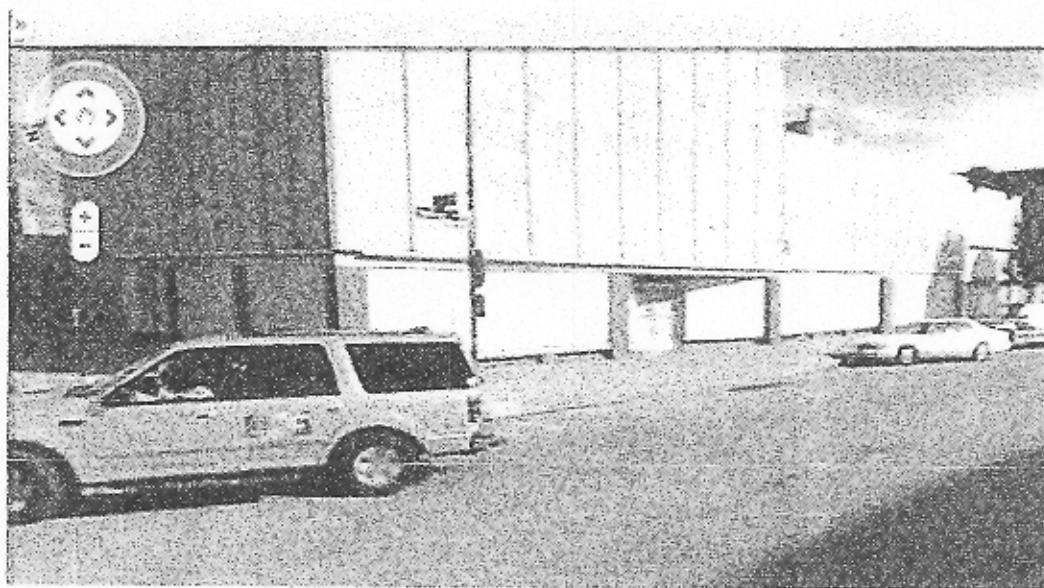
#### **1.02 PROJECT OBJECTIVES**

- A.** Remove all asbestos containing material from areas described in Scope of Work, Drawings and this Project Specification.
- B.** Contractor shall insure that no individual is exposed to asbestos fibers in excess of levels shown in these specifications.
- C.** Contractor shall insure that no asbestos contamination occurs outside any Containment erected by Contractor.
- D.** Contractor shall insure that all asbestos waste is disposed of in accordance to these specifications and all applicable laws.
- E.** Contractor shall document all activities pertaining to this project in accordance with these specifications and all applicable laws.

#### **1.03 DESCRIPTION OF WORK**

- A.** Remove asbestos from all areas shown at pre-bid conference, in the Drawings, and in the specifications and any addenda. Bidder must field verify types, locations, quantities, and access to ACM and any special or unusual circumstances during the pre-bid.
- B.** The purpose of this project is to completely remove all specified asbestos materials from **713 Indiana, Wichita Falls, Texas.**

713 Indiana



## 713 Indiana

1. **Abatement of Sheetrock Compound & Texture - Section # 02086** Remove all sheetrock compound and texture throughout the entire structure. (No detail drawing)
2. **Abatement of Floor Tile and Mastic - Section # 02087** Remove all floor tile and mastic throughout entire structure. (No detail drawing)
3. **Abatement of Wall Plaster Finish Coat - Section # 02088** Remove all wall plaster finish coat throughout entire structure. (No detail drawing)
4. **Abatement of Window Glazing - Section # 02084** Remove all window glazing throughout the entire structure. (No detail drawing)

Prior to removal, utilizing full PPE, the Abatement Contractor shall clean and dispose of non-asbestos materials as regular waste if materials can be de-contaminated. The Abatement Contractor will be responsible for disposal of all waste. No debris in the structure shall be left on the property.

The City of Wichita Falls will be responsible for the ARU fee to the State.

Contractor to remove these different asbestos-containing materials from every work area. Project drawings are not exactly to scale and are only meant to give a general idea of the work. Each Contractor is responsible for his or her own measurements and assessment of the total work involved.



## **SECTION 01043 – COORDINATION – ASBESTOS ABATEMENT**

### **1.01 WORK REQUIREMENTS:**

- A. The contractor shall schedule his work-hours to accomplish the abatement as specified in this Project Specification, drawing and addenda.
- B. Before starting work at any location the Contractor shall inform the Owner and his representative, the Consultant or his authorized representative of the intent to start such work. Strict adherence with NESHAPS 10-day notice is required.
- C. Before beginning any work under the contract the Contractor shall provide in writing to the Owner and the Consultant the name of the person assigned as project superintendent. If a different person is assigned during the performance period, written notification and all documentation required under these specifications shall be provided to the Consultant before the new person assumes responsibility as project superintendent.

### **D. WORKING CONDITIONS:**

- 1. The contractor shall visit the site to thoroughly familiarize himself with all details of the work and working conditions and to verify all dimensions in the field. The Contractor shall notify the Consultant, in writing, when a discrepancy is found in the contract drawings, contract specifications, and/or field conditions.
- 2. The Contractor will not be compensated for any unauthorized work.
- 3. The Contractor shall maintain the interior and exterior of the building clean of any and all debris that result from the performance of this project.
- 4. The Contractor shall insure safe working conditions and abide by all applicable OSHA safety regulations during the performance of the contract with the occupants in the building.

### **1.02 QUALIFICATION REQUIREMENTS:**

- A. All work performed under this Section shall be done by a Contractor specialized in the removal of asbestos and must meet, but not be limited to, the following:
  - 1. Three years experience using Occupational Safety and Health Administration (OSHA), and/or Environmental Protection Agency (EPA) recommended asbestos removal methods.
  - 2. Shall have performed satisfactorily, from start to completion. Asbestos removal projects will be completed using Full Containment Method of isolation using air filtration system ventilation.

3. Shall not have previous history, during the last three- (3) years of abatement projects started and completed by the Contractor, of any "Serious" (OSHA) fines and or notices of violation regarding compliance with asbestos removal procedures by any State, Local or Federal agency.
4. Shall have, as a minimum, a project manager and / or foreman having a working knowledge and three- (3) years experience in asbestos related projects. This shall include but not be limited to meeting requirements of 1.03 B. of this section.
5. Contractor shall have an Asbestos Contractor State License to be able to do work in the State of Texas.

**1.03 PERSONNEL QUALIFICATIONS:**

**A.** All Contractor personnel involved with this project must be trained and have EPA Approved Certification showing they are fully qualified to do asbestos removal. Contractor shall insure that every worker is thoroughly familiar with the standard operating procedure of the Contractor for abatement work and with all applicable laws. All personnel shall have current OSHA (1926.1101) medical examinations and be trained in the use and care of respirators. Anyone with out the proper qualifications listed here in shall not be allowed to work in the abatement area at any time.

**B. SUPERVISOR QUALIFICATIONS are as follows:**

1. Meet requirements of an OSHA competent person.
2. Must have knowledge of methods and procedures of the removal, treatment, handling, and disposal of asbestos and asbestos containing materials and subsequent cleaning of affected environment.
3. This person shall be knowledgeable of Federal, State, and Local regulations pertaining to the handling of asbestos.
4. This person shall remain on the job site during working hours at all times. In the event the Supervisor leaves the job site, ~~III~~ has the right to stop work until the Supervisor returns to the site. Any and all extra cost arising from said event shall be the responsibility of the Contractor.
5. Persons shall have current OSHA Medical & EPA approved Supervisors Certificates.
6. Person shall have State License to do work in Texas as a Supervisor.

**C. WORKERS REQUIREMENTS:**

1. Meet requirements of **OSHA** (1926.58).
2. Must have knowledge of methods and procedures of the removal, treatment, handling, and disposal of asbestos and asbestos containing materials and subsequent cleaning of affected environment.
3. This person shall be knowledgeable of the Federal, State, and Local regulations pertaining to the handling of friable asbestos.
4. Persons shall have current **OSHA** medical and **EPA** approved 24-hour abatement worker certificates.
5. Persons shall have State license to do work in the state of Texas as an abatement worker.

**1.04 PERMITS:**

- A.** Contractor shall obtain all necessary permits from the City of Wichita Falls, Texas, Building Inspection Department and any other agency having jurisdiction prior to commencement of work.

**END OF SECTION - 1043**

## SECTION 01097 - REFERENCE STANDARDS AND DEFINITIONS - ASBESTOS ABATEMENT

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 DEFINITIONS

- A. **General:** Basic contract definitions are included in the Conditions of the Contract.
  - 1. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on the Drawings, or other paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the reader locate the reference. Location is not limited.
  - 2. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by the Designer, requested by the Designer, and similar phrases.
  - 3. "Approved": The term "approved," when used in conjunction with the Designer's action on the Contractor's submittals, applications, and requests, is limited to the Designer's duties and responsibilities as stated in the Conditions of the Contract.
  - 4. "Regulations": The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
  - 5. "Furnish": The term "furnish" means supply and deliver to the Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.
  - 6. "Install": The term "install" describes operations at the Project Site including the actual unloading, unpacking, assembly, erecting, and placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
  - 7. "Provide": The term "provide" means to furnish and install, complete and ready for the intended use.
  - 8. "Installer": An installer is the Contractor or another entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, or similar operations. Installers are required to be experienced in the operations they are engaged to perform.

- a. The term "experienced," when used with the term "installer," means having a minimum of 5 previous projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of authorities having jurisdiction.
  - b. Trades: Using terms such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to trades persons of the corresponding generic name.
  - c. Assigning Specialists: Certain Sections of the Specifications require that specific construction activities shall be performed by specialists who are recognized experts in those operations. The specialists must be engaged for those activities, and their assignments are requirements over which the Contractor has no option. However, the ultimate responsibility for fulfilling contract requirements remains with the Contractor.
    - 1) This requirement shall not be interpreted to conflict with enforcing building codes and similar regulations governing the Work. It is also not intended to interfere with local trade-union jurisdictional settlements and similar conventions.
9. "Project Site" is the space available to the Contractor for performing construction activities, either exclusively or in conjunction, with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.
  10. "Testing Agencies": A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.
  11. "Designer": This is the entity described as the "Consultant". The Consultant will represent the Owner during abatement and until final payment is due. The Consultant will advise and consult with the Owner.  
The Consultant is a full time representative of the Owner at the job site and with approval by the Owner has the authority to stop the work upon written or verbal order if requirements of the Contract Documents are not met, or if in the sole judgment of the Consultant or Owner, the interests of the Owner, safety of any person or the Owner's property are jeopardized by the work.
  12. "Stop Work Order": is a written order to cease asbestos removal, encapsulation or enclosure activities. The Contractor must maintain work area enclosure, pressure differential isolation and ventilation of the work area, and decontamination units during the period that a Stop Work Order is in affect.



13. "General Superintendent": This is the Contractor's Representative at the work site. This person must be a Competent Person as defined by OSHA in 29 CFR 1926.

**B. Definitions Relative to Asbestos Abatement:**

1. Adequately Wet: means to sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from the asbestos-containing material (ACM), then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wetted.
2. "Asbestos": The asbestiform varieties of chrysotile (serpentine), amosite (cummingtonite-grunerite), crocidolite (riebeckite), tremolite, anthophyllite, actinolite, and any of these minerals that has been chemically treated and/or altered. For purposes of the contract documents materials described in the contract documents as asbestos are to be considered as asbestos.
3. "Asbestos-Containing Material (ACM)": Any material containing more than 1% asbestos as determined using the methods specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy.
4. "Asbestos-Containing Waste Material": any waste that contains asbestos. This term includes filters or other materials contaminated with asbestos. This term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.
5. "Asbestos debris": pieces of ACM that can be identified by color, texture, or composition, or dust, if the dust is determined by an accredited inspector to be ACM.
6. "Certified Industrial Hygienist (C.I.H.)": one certified in the practice of industrial hygiene by the American Board of Industrial Hygiene.
7. "Competent person": an individual who meets the requirements of OSHA as a "competent person" for the specific activity involved in the work. The "competent person" must meet the requirements of 29 CFR 1926.32(f), and 29 CFR 1926.1101.
8. "Filter": A media component used to remove solid or liquid particles from air and water.
9. "Friable Asbestos": any asbestos-containing material that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
10. "Grinding": to reduce to powder or small fragments and includes manual or mechanical chipping or drilling.
11. "HEPA Filter": A High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97% of all mono-dispersed particles of 0.3 microns in diameter.

12. "HEPA Filter Vacuum Collection Equipment (or vacuum cleaner)": High efficiency particulate air filtered vacuum collection equipment with a HEPA filter.
13. "Intact": that the ACM has not crumbled, been pulverized, or otherwise deteriorated so that the asbestos is no longer likely to be bound with its matrix.
14. "Leak-tight": that solids or liquids cannot escape or spill out. It also means dust-tight.
15. "Negative Pressure Enclosure (NPE)": A pressure differential and ventilation system where the work area is maintained at a negative pressure relative to air pressure outside the work area.
16. "Nonfriable Material": any material that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure and has not been rendered friable.
17. "Personal Monitoring": Sampling of the asbestos fiber concentrations within the breathing zone of an employee.
18. "Surfacing material": material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).
19. "Thermal system insulation (TSI)": insulation applied to pipes, fittings, boilers, breeching, tanks, ducts or other components to prevent heat loss or gain.
20. "Time Weighted Average (TWA)": The average concentration of a contaminant in air during a specific time period as determined by the method prescribed in Appendix A of 29 CFR part 1926.1101.
21. "Visible Emissions": Any emissions containing particulate material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.
22. "Working Day": Monday through Friday and includes holidays that fall on any of the days Monday through Friday as indicated in the notification requirements.

### 1.3 INDUSTRY STANDARDS

- A. **Applicability of Standards:** Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. **Publication Dates:** Comply with the standards in effect as of the date of the Contract Documents.

- C. **Conflicting Requirements:** Where compliance with 2 or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer to the Designer before proceeding for a decision on requirements that are different but apparently equal, and where it is uncertain which requirement are the most stringent.
1. **Minimum Quantity or Quality Levels:** The quantity or quality level shown or specified shall be the minimum acceptable. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to the Designer for a decision before proceeding.
- D. **Copies of Standards:** Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
1. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source.
- E. **Standards:** which apply to asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:
1. American National Standards Institute (ANSI)  
1430 Broadway  
New York, New York 10018  
(212)354-3300
- a. Fundamentals Governing the Design and Operation of Local Exhaust Systems  
Publication Z9.2
- b. Practices for Respiratory Protection Publication Z88.2
2. American Society for Testing and Materials (ASTM)  
100 Bar Harbor Drive  
West Conshohocken, PA 19428-2959  
(610) 832-9585
- a. Safety and Health Requirements Relating to Occupational Exposure to Asbestos  
E 849
- b. ASTM Standard Practice for Encapsulants for Spray-or-Trowel-Applied Friable Asbestos-Containing Building Materials E1494

## **PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01097**

## SECTION 01098 - CODES, REGULATIONS AND STANDARDS - ASBESTOS ABATEMENT

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this section.

#### 1.2 SUMMARY

- A. This section sets forth governmental regulations which are included and incorporated herein by reference and made a part of the specification. This section also sets forth those notices and permits which are known to the Owner and which either must be applied for and received, or which must be given to governmental agencies before start of work.
  - 1. Requirements include adherence to work practices and procedures set forth in applicable codes, regulations and standards.
  - 2. Requirements include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with codes, regulations, and standards.

#### 1.3 CODES, REGULATIONS AND STANDARDS

- A. **General Applicability of Codes, Regulations and Standards:** Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable codes and regulations have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the Contract Documents, or as if published copies are bound herewith.
- B. **Contractor Responsibility:** The Contractor shall assume full responsibility and liability for the compliance with all applicable Federal, State, and local regulations pertaining to work practices, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, State, and local regulations. The Contractor shall hold the Owner and Designer harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of the contractor, the contractor's employees, or subcontractors.
- C. **Federal Requirements:** which govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:
  - 1. **OSHA:** U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA), including but not limited to:

- a. Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite;  
Final Rules Title 29, Part 1910, Section 1001 of the Code of Federal Regulations  
Final Rules Title 29, Part 1926, Section 1101 of the Code of Federal Regulations
  - b. Respiratory Protection  
Title 29, Part 1910, Section 134 of the Code of Federal Regulations  
Title 29, Part 1926, Section 103 of the Code of Federal Regulations
  - c. Personal Protective Equipment for General Industry  
Title 29, Part 1910, Section 132 of the Code of Federal Regulations  
Title 29, Part 1926, Sections 95 - 107 of the Code of Federal Regulations
  - d. Access to Employee Exposure and Medical Records  
Title 29, Part 1926, Section 33 of the Code of Federal Regulations
  - e. Hazard Communication  
Title 29, Part 1926, Section 59 of the Code of Federal Regulations
  - f. Specifications for Accident Prevention Signs and Tags  
Title 29, Part 1910, Section 145 of the Code of Federal Regulations
  - g. Permit Required Confined Space  
Title 29, Part 1910, Section 146 of the Code of Federal Regulations
  - h. Construction Industry  
Title 29, Part 1910, Section 1001 of the Code of Federal Regulations  
Title 29, Part 1926, Section 1101 of the Code of Federal Regulations
  - i. Construction Industry - General Duty Standards  
Title 29, Part 1926, Sections 20 through 35 of the Code of Federal Regulations
  - j. Shipyard Industry  
Title 29 Part 1915 Section 1001 of the Code of Federal Regulations
2. DOT: U. S. Department of Transportation, including but not limited to:
- a. Hazardous Substances  
Title 49, Part 171 and 172 of the Code of Federal Regulations
  - b. Hazardous Material Regulations  
General Awareness and Training Requirements for Handlers, Loaders and Drivers  
Title 49, Parts 171-180 of the Code of Federal Regulations
  - c. Hazardous Material Regulations  
Editorial and Technical Revisions  
Title 49, Parts 171-180 of the Code of Federal Regulations

**3. EPA: U. S. Environmental Protection Agency (EPA), including but not limited to:**

- a. Asbestos Abatement Projects; Worker Protection Rule  
Title 40 Part 763, Sub-part G of the Code of Federal Regulations
- b. Asbestos Hazard Emergency Response Act (AHERA) Regulation  
Title 40, Part 763, Sub-part E of the Code of Federal Regulations
- c. EPA Model Accreditation Plan - Asbestos Containing Materials Final Rule & Notice  
Title 40, Part 763, Sub-part E, Appendix C of the Code of Federal Regulations
- d. National Emission Standard for Hazardous Air Pollutants (NESHAP)  
National Emission Standard for Asbestos  
Title 40, Part 61, Sub-part A, and Sub-part M (Revised Sub-part B) of the Code of Federal Regulations

**D. State Requirements: which govern asbestos abatement work or hauling and disposal of asbestos waste materials including but not limited to:**

- a. TDH, Texas Asbestos Health Protection Rules, Texas Department of Health  
Asbestos Programs Branch, August 2003, Publication # 18-10947.

Abide by all local requirements which govern asbestos abatement work or hauling and disposal of asbestos waste materials.

**1.4 NOTICES:**

**A. STATE AND LOCAL AGENCIES:**

- 1. Send written notification as required by state and local regulations prior to beginning any work on ACM.

**1.5 PERMITS:**

- A. Permit: All asbestos containing waste is to be transported by an entity maintaining a current "Industrial waste hauler permit" specifically for ACM, as required for transporting of waste ACM to a disposal site.
- B. Contractor is responsible for obtaining any demolition, building, renovation or other permits, and for paying application fees, if any, where required by State or Local jurisdictions.

## **1.6 LICENSES:**

- A. Licenses:** Maintain current licenses as required by applicable state or local jurisdictions for the removal, transporting, disposal or other regulated activity relative to the work of this contract.

## **1.7 POSTING AND FILING OF REGULATIONS**

- A. Posting and Filing of Regulations:** Post all notices required by applicable federal, state and local regulations. Maintain two (2) copies of applicable federal, state and local regulations and standard. Maintain one copy of each at job site. Keep on file in Contractor's office one copy of each.

## **1.8 SUBMITTALS:**

- A. Before Start of Work:** Submit the following to the Designer for review. No work shall begin until these submittals are returned with Designer's action stamp indicating that the submittal is returned for unrestricted use or final-but-restricted use.
  - 1. Permits, Licenses, and Certificates:** For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work including:
    - a. State and Local Regulations:** Submit copies of codes and regulations applicable to the work.
  - 2. Notices:** Submit notices required by federal, state and local regulations together with proof of timely transmittal to agency requiring the notice.
  - 3. Permits:** Submit copies of current valid permits required by state and local regulations.
  - 4. Licenses:** Submit copies of all State and local licenses and permits necessary to carry out the work of this contract.

**PART 2 - PRODUCTS** (Not Applicable)

**PART 3 - EXECUTION** (Not Applicable)

**END OF SECTION - 01098**

For NESHPA Notification form, see file 01098SFM.



## **SECTION 01301 – SUBMITTALS – ASBESTOS ABATEMENT**

### **1.02 PRE-ABATEMENT SUBMITTAL**

#### **A. PROOF OF PERSONNEL QUALIFICATIONS, TRAINING AND EXPERIENCE**

1. Submit Texas State Contractor License to be able to do asbestos abatement work in Texas.
2. Submit name of supervisor to be used on project. Submit his current medical, respiratory fit test, EPA approved supervisor training certificate, and his Texas State License to work as a supervisor.
3. Submit name of all workers to be used on project. Submit their current medicals, respiratory fit tests, EPA approved worker training certificates, and their Texas State License to perform work as asbestos workers.

#### **B. PATENTED PRODUCTS**

1. Contractor shall submit a license or equivalent, written permission to use any patented product and/or procedure used. Contractor shall submit a notarized statement acknowledging that he is not using patented products or procedures on this project. Contractor assumes all liability for failure to disclose the use of a patented product and/or procedure.

C. Submit company Standard Operating Procedures for asbestos abatement projects.

D. Submit company fire and emergency procedures and spill response plan.

E. Submit company Respiratory Program.

G. Submit company Hazard Communication Program.

### **1.03 SUBMITTALS REQUIRED AT PRE-ABATEMENT MEETING:**

- A. Prior to starting project, Contractor shall submit to the Industrial Hygienist the following data on all materials, fixtures or equipment intended for use on this project. Each item not meeting standard shall be replaced by Contractor at no added expense to Owner. Each item on the list submitted by the Contractor shall be clearly identified as to proposed location with appropriate reference to drawings and/or specifications. Catalogs, drawing and similar literature shall be clearly marked to identify the items as noted on the lists submitted, and shall be cross-reference therewith. Approval of such items will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor shall be responsible for

the dimensions and design of adequate connections, details and satisfactory construction of all work. Contractor shall submit complete narrative, pictorial or manufactures specifications and technical data brochure to describe.

- B. All enclosures, shrouding complete with detailed layout of decontamination facilities, air filtration units, emergency exit waste load out and control center.
- C. Air filtration machines shall show all calculations to show the adequate number of units to be used.
  - 1. **HEPA** filter set, including primary and secondary filters.
  - 2. Time meter and filter pressure drop gauge.
  - 3. All accessories of air filtration system as: automatic shut-down if **HEPA** ruptures or air discharge is blocked, lockout to prevent usage without **HEPA** filter.
  - 4. Air filtration system pressure recorder, water gauge or equivalent for use to verify pressure differential.
- D. Work force to be used, supply numbers and work schedule for completion of project. Show back up personnel capabilities in the event Contractor falls behind schedule.
- E. Truck or vehicle to be used to transport **ACM** waste to landfill. Show load capabilities and condition of vehicle.
- F. Proof that EPA 10 Day Notice has been submitted. Also proof that local police and fire departments have been notified of project and conditions of project.
- G. Proof that notice has been submitted for permission to dump waste at EPA approved Landfill.
- H. **DECONTAMINATION CENTER TO BE USED:**
  - 1. Pre-fab or portable showers to be used have Hot and Cold water taps, and made of non-porous materials.

2. Waste water filtration system to be used that has a 20 micron primary filter and 5 micron secondary filter. Also submit data on replacement filters.

**I. ALL RESPIRATORY PROTECTION EQUIPMENT BROCHURES DESCRIBING:**

1. Air purifying respirator with **HEPA** and organic filters when needed and **NIOSH** approval number.
2. Powered Air Purifying respirators with full face piece, **HEPA** filters and **NIOSH** number.
3. Type C Supplied air complete with full piece, pressure demand regulator, **NIOSH** approval number, back up egress system. Panel board complete with compressor failure alarm high temperature alarm, carbon monoxide alarm, in line filtration to assure Grade D air, low pressure compressor, and proper CO alarm calibration procedure.

**J. SUBMIT BROCHURES FOR OTHER EQUIPMENT AND SUPPLIES:**

1. Plastic sheeting.
2. Duct tape.
3. Plastic bags.
4. Glove bag.
5. Warning signs, labels and barrier tape.
6. Disposable clothing.

**K. SUBMIT BROCHURES FOR OTHER EQUIPMENT AND SUPPLIES:**

1. Wetting agent (surfactant).
2. Encapsulates.
3. Plastic lined drum.
4. Vacuum equipment with a **HEPA** filter system to be used.
5. Air sampling apparatus.
6. Ground fault interrupters.
7. Communication system between regulated area and control area.

**1.04 SUBMITTALS REQUIRED DAILY DURING ABATEMENT:**

- A. Daily, during the project the following items shall be maintained by the Contractor and may be verified by the IH.
- B. Air monitoring results from previous day of sampling. The results shall be hard copy from the approved lab. All air sample results must be posted within twenty four (24) hours.
- C. Daily, narrative log of work progress, to include delays, potential change orders, stoppage of work and results of visitor's inspections.
- D. Daily sign-in rosters for workers and supervisors.
- E. Documentation of inspection of all areas and equipment. Contractor shall note corrections or planned actions for correction.
- F. Notification of any accident or emergency requiring a doctor's treatment or evacuation of any employee.
- G. Documentation of all personnel entering and leaving regulated area.
- H. Within twenty four (24) hours submit the documentation of any ACM waste that has been taken to landfill.
- I. Updated construction schedule and abatement plan.
- J. Documentation of filter changes on respirators, HEPA vacuums, filtered neg-air, and other engineering controls.
- K. When Grade D air is required Contractor shall provide compliance with OSHA 1910.134 and document that CO monitor is calibrated on a daily basis.

**1.05 SUBMITTALS REQUIRED AT CONCLUSION OF PROJECT:**

- A. Submit the waste manifest documenting the landfill used and the total amount of ACM that was buried, within five (5) days of final ACM dumping.
- B. All air sample results from the analytical lab that were not previously submitted.
- C. A complete log book of all the documentation acquired during the project. Contractor shall insure that minutes of final walk-thru with IH, and Owner are incorporated into the final project documents along with any corrective actions taken by the Contractor.
- D. Complete written reports on proper OSHA forms of any accidents, emergency or other safety and/or health incidents.
- E. Summary of corrective actions taken off punch list, if any, drawn up by Owner and IH.

**1.06 DISAPPROVED SUBMITTALS:**

- A.** Submittal which has been disapproved, the Contractor shall re-submit within five (5) days of receipt of the disapproved submittals.

**END OF SECTION - 01301**

## SECTION 01410 - TESTING LABORATORY SERVICES

### 1.01 AIR MONITORING AND SAMPLING:

- A. General Requirements: Air monitoring and sampling shall be in accordance with standards and methods required by all applicable regulations.
- B. Contractor shall obtain the services of a Licensed Asbestos Consulting Agency to perform air monitoring for the purpose of personnel (OSHA) air monitoring and sampling. Asbestos Consulting Agency shall also be licensed to perform Phase Contrast Microscopy. Personnel air monitoring shall be performed daily throughout the entire abatement project. Personnel air monitoring shall be performed during prep work if there is a possibility of disturbance to any asbestos containing materials.
- C. Contractor shall submit qualifications and experience of the individual who shall be responsible for air monitoring and sampling.
- D. Baseline air samples will be collected by the Consultant under normal building conditions for any abatement activity prior to the disturbances of asbestos containing building material as a part of the activity. A minimum of three samples shall be collected on .8 micron mixed cellulose ester (MCE) filters loaded in conducting cassettes with extension cowl. The minimum sample volume will be 1,250 liters. The samples shall be preserved for no less than 60 days following achieving clearance.
- E. Throughout the removal and subsequent clearing operations, **AMBIENT (AREA) MONITORING** will be conducted by the Consultant to ensure that the Contractor is complying with all regulations and is conducting the work in a manner which minimizes airborne asbestos levels as well as minimizes the contamination of the Owner's facilities. Ambient samples will be collected: inside containment; outside containment but inside building (if applicable); the negative air unit discharge; immediately outside the entrance to the decontamination facility (representative of the air being drawn into the facility); and outside the bag out facility. Analytical results will be available to the Contractor at the Control Center.
- F. For each set of air samples submitted to a laboratory by the Contractor for analysis, the Contractor shall submit a blank cassette for analysis (minimum of 10%). Each blank cassette shall be submitted as a part of the Contractor's quality control program.
- G. IH may request to QC sample taken by Contractor. IH will randomly ask for wedge of cassette filter or read a percentage of Contractor's samples.
- H. Air monitoring results provided by the Contractor to the Owner shall include as a minimum for each sample the following: sample ID, laboratory ID, date sample taken, flow (liters/minutes), time (minutes), blank count (fibers/field), fibers/cc, detection limit (fibers/cc), location, employee's name, type of activity and the name of the analyst and the date the sample was analyzed.

## **1.02 METHODS OF ANALYSIS:**

- A.** Air samples shall be analyzed by the phase contrast microscopy method using the latest edition of the **NIOSH 7400** protocol, counting rules A.
- B.** Air samples shall be analyzed by an analytical laboratory who possess the following:
  - 1. Lab shall use the latest **NIOSH 7400** method for analysis according to 29 **CFR** 1926.58, Appendices A and B which describes the **OSHA ORM** method and which utilizes the acetone/triacetin sample preparation or equal.
  - 2. Analytical Laboratory to be used shall be independent of the Contractor and shall be approved by the Industrial Hygienist.
  - 3. Lab shall have technicians who have completed the **NIOSH 582** Course. Certificates must be submitted to IH upon request.
  - 4. Lab shall be capable of written results to job sites within 24 hours of sampling.

## **1.03 CLEARANCE SAMPLES**

- A.** Transmission Electron Microscopy - when required by 40 **CFR** Part 763 (**AHERA** Rules) or when included in the scope of work of the project.
  - 1. Any **TEM** analysis that fails shall be paid by the Contractor and Contractor shall pay the IH monitoring time required to take the samples.

**END OF SECTION - 01410**